

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A frequency regulating circuit for the current-consumption-dependent clock supply of a circuit configuration, comprising:

a current measuring device configured to measure an instantaneous current consumption of the circuit configuration;

means for comparing the instantaneous current measured by said current measuring device with a definable threshold value;

a controllable clock supply circuit having:

an output to be connected to a clock input of the circuit configuration;

a clock generator configured to generate a clock signal with clock pulses, said clock generator configured to generate a constant maximum internal frequency; and

a pulse filter configured to filter clock pulses from said clock signal from said clock generator, said pulse filter including a control input, a filtered clock signal being provided to said output;

a control device connected to said clock supply circuit and driving said clock supply circuit based upon the measured current consumption, said control device providing a control signal to said control input of said pulse filter when said means for comparing determine that the instantaneous current consumption exceeds the definable threshold value; and

said pulse filter configured to suppress at least one clock pulse of said clock signal generated by said clock signal generator, ~~directly~~ in response to said control signal at said control input, such that said control device adjusts said clock frequency instantaneously and non-incrementally to provide at said output, at any time, the maximum possible clock frequency corresponding to a maximum permissible current consumption of the circuit.

2. (Canceled)

3. (Previously Presented) The frequency regulating circuit according to claim 1, wherein said means for comparing further comprise a comparator configured to compare the current measured by the current measuring device with the definable threshold value.

4. (Currently Amended) A frequency regulating circuit for the current-consumption-dependent clock supply of a circuit configuration, comprising:

- a current measuring device configured to measure an instantaneous current consumption of the circuit configuration;

- means for comparing the instantaneous current measured by said current measuring device with a definable threshold value;

- a controllable clock supply circuit having:

- an output to be connected to a clock input of the circuit configuration;

- generator configured to generate a constant maximum internal frequency; and

- a pulse filter connected to at least one of said clock generator and said output, configured to filter clock pulses from said clock signal from said clock generator, said pulse filter including a control input, a filtered clock signal being provided to said output;

- a control device connected to said clock supply circuit and configured to drive said clock supply circuit based upon the measured current consumption, said control device programmed to provide a control signal to said control input of said pulse filter when said means for comparing determines that the instantaneous current consumption exceeds the definable threshold value; and

- said pulse filter configured to suppress at least one clock pulse of said clock signal generated by said clock signal generator, ~~directly~~ in response to said control signal at said control input, such that, said control device adjusts said clock frequency instantaneously and non-incrementally to provide at said output, at any time, the maximum possible clock frequency corresponding to a maximum permissible current consumption of the circuit.

5. (Canceled)

6. (Previously Presented) The frequency regulating circuit according to claim 4, wherein said means for comparing comprise a comparator configured to compare the current measured by the current measuring device with a definable threshold value.

7. (Currently Amended) A frequency regulating circuit for the current-consumption-dependent clock supply of a circuit configuration, comprising:

- a current measuring device configured to measure an instantaneous current consumption of the circuit configuration;

- means for comparing the instantaneous current measured by said current measuring device with a definable threshold value;

- a controllable clock supply circuit having:

- an output to be connected to a clock input of the circuit configuration;

- a clock generator configured to generate a clock signal with clock pulses, said clock generator generating a constant maximum internal frequency; and

- a pulse filter connected between said clock generator and said output, said pulse filter including a control input;

- a control device connected to said clock supply circuit and configured to drive said clock supply circuit based upon the measured current consumption, said control device programmed to provide a control signal to said control input of said pulse filter when said means for comparing determine that the instantaneous current consumption exceeds the definable threshold value; and

- said pulse filter configured to filter out at least one clock pulse of said clock signal generated by said clock signal generator, ~~directly~~ in response to said control signal at said control input, such that, said control device adjusts said clock frequency instantaneously and non-incrementally to provide at said output, at any time, the maximum possible clock frequency corresponding to a maximum permissible current consumption of the circuit.

8. (Canceled)

9. (Previously Presented) The frequency regulating circuit according to claim 7, wherein said means for comparing comprise a comparator configured to compare the current measured by the current measuring device with a definable threshold value.